

**Listing of the Claims:**

The following is a complete listing of all the claims in the application, with an indication of the status of each:

- 1        1. (Original) An electronically controlled pneumatic (ECP) end of train  
2        (EOT) pneumatic emulation system, comprising:  
3                a locomotive control unit associated with a non-ECP equipped lead  
4        locomotive; and  
5                an interface unit providing ECP data to the locomotive control unit  
6        received from ECP equipped train cars via data communication links,  
7        wherein the locomotive control unit provides brake commands to the ECP  
8        equipped train cars via the interface unit in response to the ECP data  
9        received from the interface unit.
  
- 1        2. (Original) The system of claim 1, wherein the interface unit further  
2        provides EOT data to the locomotive control unit in response to  
3        information received from an EOT unit mounted on a last car of the train.
  
- 1        3. (Original) The system of claim 2, wherein the locomotive control unit  
2        provides communication with the interface unit via a wireless data link and  
3        the interface unit provides communication with the ECP equipped trains  
4        and the EOT unit via an ECP trainline.
  
- 1        4. (Original) The system of claim 1, wherein the interface unit is an  
2        ECP/head of train (HOT) interface unit which emulates a Head End Unit  
3        (HEU) in order to provide system set-up and status reporting.
  
- 1        5. (Original) The system of claim 1, wherein the ECP equipped train cars  
2        respond to the brake commands over an ECP trainline as initiated from the  
3        interface unit, wherein the ECP equipped train cars apply and release  
4        brakes in response to changes in brake pipe pressure when there is a failure  
5        to receive the ECP message, and wherein brake operation are provided

6 under pneumatics control during ECP failure.

1 6. (Original) The system of claim 1, wherein the interface unit supports  
2 direct release and graduated release braking applications such that in the  
3 graduated release application the interface unit sends ECP commands to  
4 release brake pipe pressure in steps to the ECP equipped trains as brake  
5 pipe pressure is restored.

1 7. (Original) The system of claim 1, wherein the locomotive control unit is  
2 a portable unit having receiver and display functions used for ECP related  
3 text messages.

1 8. (Original) The system of claim 1, wherein the interface unit provides a  
2 migration path for application between the ECP equipped train cars and  
3 non-ECP equipped train cars such that the ECP equipped train cars are  
4 provided with brake commands electrically from the interface unit via the  
5 locomotive control unit and the non-equipped train cars respond to  
6 changes in brake pipe pressure.

1 9. (Original) An electronically controlled pneumatic (ECP) end of train  
2 (EOT) pneumatic emulation system, comprising:  
3 a locomotive control unit associated with a non-ECP equipped lead  
4 locomotive; and  
5 means for interfacing ECP data to the locomotive control unit  
6 received from ECP equipped train cars, wherein the locomotive control  
7 unit provides brake commands to the ECP equipped train cars via the  
8 interface unit in response to the ECP data received from the interface unit.

1 10. (Original) The system of claim 9, wherein said means for interfacing  
2 supports both direct and graduated release braking applications such that in  
3 the graduated release application the interface unit sends ECP commands  
4 to release brake pipe pressure in steps to the ECP equipped trains as brake

5 pipe pressure is restored.

1 11. (Original) A method of electronically controlling a brake pipe pressure  
2 in a train having an electronically controlled pneumatic (ECP) end of train  
3 (EOT) pneumatic emulation system, comprising the steps of:  
4 providing a start brake pipe pressure;  
5 determining whether a rate of change of the start brake pipe  
6 pressure is within a predetermined threshold limit;  
7 providing an ECP message to the EOT and individual train cars to  
8 make a service brake application when the determining step determines  
9 that the rate of change of the start brake pipe pressure is within the  
10 threshold limit.

1 12. (Original) The method of claim 11, further comprising providing an  
2 ECP message to the EOT and individual train cars to make an emergency  
3 brake application when the determining step determines that the rate of  
4 change of the start brake pipe pressure exceeds the threshold limit.

1 13. (Currently Amended) The method of claim 12, further comprising:  
2 monitoring an emergency brake pressure at a head of train (HOT)  
3 associated ~~with~~ with the EOT; and  
4 monitoring the emergency brake pressure at the EOT, wherein the  
5 emergency brake pressure provides the emergency brake application.

1 14. (Original) The method of claim 13, further comprising:  
2 determining when the emergency brake pipe pressure measured by  
3 the EOT exceeds a first predetermined limit;  
4 determining when the emergency brake pipe pressure measured by  
5 the HOT exceeds a second predetermined limit, wherein the emergency  
6 brake pipe application remains active when the EOT determining step and  
7 the HOT determining step are below the predetermined limit and the  
8 second predetermined limit, respectively.

- 1        15. (Original) The method of claim 14, wherein the first predetermined  
2        limit is approximately 70 PSI and the second predetermined limit is  
3        approximately 15 PSI plus the first predetermined limit.
- 1        16. (Original) The method of claim 14, further comprising increasing the  
2        brake pipe pressure to the start brake pipe pressure when the EOT  
3        determining step and the HOT determining step exceed the predetermined  
4        limit and the second predetermined limit, respectively.
- 1        17. (Original) The method of claim 11, further comprising providing an  
2        ECP message to the EOT and individual train cars to make an emergency  
3        brake pressure application when the service brake application exceeds a  
4        predetermined reduction in brake pipe pressure.
- 1        18. (Original) The method of claim 17, wherein the predetermined  
2        reduction in brake pipe pressure is approximately 120% of a full service  
3        brake application.
- 1        19. (Original) The method of claim 11, further comprising determining  
2        whether there is a change in the start brake pipe pressure prior to the  
3        determining whether a rate of change of the start brake pipe pressure is  
4        within the predetermined threshold limit, wherein a second ECP message  
5        is provided to the EOT and the individual train cars when there is no  
6        change to the start brake pipe pressure.
- 1        20. (Original) The method of claim 19, wherein the second message  
2        instructs the EOT and individual train cars to remain at the start brake pipe  
3        pressure.